

SEQUENCE LISTING

5 (1) GENERAL INFORMATION:

10 (i) APPLICANT: French, Cynthia K.
Schneider, Patrick A.
Yamamoto, Karen K.

15 (ii) TITLE OF INVENTION: Prostate Cancer-Specific Marker

(iii) NUMBER OF SEQUENCES: 2

20 (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: TOWNSEND and TOWNSEND and CREW LLP
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(C) CITY: San Francisco
(D) STATE: CA
(E) COUNTRY: USA
(F) ZIP: 94111

25 (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

30 (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: (to be assigned)
(B) FILING DATE: (herewith)
(C) CLASSIFICATION:

35 (viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Dow, Karen B.
(B) REGISTRATION NUMBER: 29,684
(C) REFERENCE/DOCKET NUMBER: 018002-000210US

40 (ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: 415-576-0200
(B) TELEFAX: 415-576-0300

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

5 (A) LENGTH: 3891 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: both
 (D) TOPOLOGY: linear

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(ix) FEATURE:

(A) NAME/KEY: CDS
 (B) LOCATION: 151..1425

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CTCTTTGCCT CCTCCCTGTT CCAGGAGCTG GTGCCCTGGG CTCTGCGCTG TTGTTTCAG 60

20 CGTTCCGAAA GCCGGCGCTT GAGATCCAGG CAAGTGAATC CAGCCAGGCA GTTTTCCCTT 120
 CAGCACCTCG GACAGAACAC GCAGTAAAAA ATG GCT CCG ATC ACC ACC AGC CGG 174
 Met Ala Pro Ile Thr Thr Ser Arg
 1 525 GAA GAA TTT GAT GAA ATC CCC ACA GTG GTG GGG ATC TTC AGT GCA TTT 222
 Glu Glu Phe Asp Glu Ile Pro Thr Val Val Gly Ile Phe Ser Ala Phe
 10 15 2030 GGC CTG GTC TTC ACA GTC TCT CTC TTT GCA TGG ATC TGC TGT CAG AGA 270
 Gly Leu Val Phe Thr Val Ser Leu Phe Ala Trp Ile Cys Cys Gln Arg
 25 30 35 4035 AAA TCA TCC AAG TCT AAC AAG ACT CCT CCA TAC AAG TTT GTG CAT GTG 318
 Lys Ser Ser Lys Ser Asn Lys Thr Pro Pro Tyr Lys Phe Val His Val
 45 50 5540 CTT AAG GGA GTT GAT ATT TAC CCT GAA AAC CTA AAT AGC AAA AAG AAG 366
 Leu Lys Gly Val Asp Ile Tyr Pro Glu Asn Leu Asn Ser Lys Lys Lys
 60 65 7045 TTT GGA GCA GAT GAT AAA AAT GAA GTA AAG AAT AAG CCA GCT GTG CCA 414
 Phe Gly Ala Asp Asp Lys Asn Glu Val Lys Asn Lys Pro Ala Val Pro
 75 80 8550 AAG AAT TCA TTG CAT CTG GAT CTT GAA AAG AGA GAT CTC AAT GGC AAT 462
 Lys Asn Ser Leu His Leu Asp Leu Glu Lys Arg Asp Leu Asn Gly Asn
 90 95 10055 TTT CCC AAA ACC AAC CTC AAA CCT GGC AGT CCT TCT GAT CTG GAG AAT 510
 Phe Pro Lys Thr Asn Leu Lys Pro Gly Ser Pro Ser Asp Leu Glu Asn
 105 110 115 12060 GCA ACC CCG AAG CTC TTT TTA GAA GGG GAA AAA GAG TCA GTT TCC CCT 558
 Ala Thr Pro Lys Leu Phe Leu Glu Gly Glu Lys Glu Ser Val Ser Pro
 125 130 13565 GAG AGT TTA AAG TCC AGC ACT TCC CTT ACT TCA GAA GAG AAA CAA GAG 606
 Glu Ser Leu Lys Ser Ser Thr Ser Leu Thr Ser Glu Glu Lys Gln Glu
 140 145 15070 AAG CTG GGA ACT CTC TTC TCC TTA GAA TAC AAC TTC GAG AGA AAA 654
 Lys Leu Gly Thr Leu Phe Phe Ser Leu Glu Tyr Asn Phe Glu Arg Lys
 155 160 16575 GCA TTT GTG GTC AAT ATC AAG GAA GCC CGT GGC TTG CCA GCC ATG GAT 702
 Ala Phe Val Val Asn Ile Lys Glu Ala Arg Gly Leu Pro Ala Met Asp
 170 175 180

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|----|---|------|
| | GAG CAG TCG ATG ACC TCT GAC CCA TAT ATC AAA ATG ACG ATC CTC CCA Glu Gln Ser Met Thr Ser Asp Pro Tyr Ile Lys Met Thr Ile Leu Pro 185 190 195 200 | 750 |
| 5 | GAG AAG AAG CAT AAA GTG AAA ACT AGA GTG CTG AGA AAA ACC TTG GAT Glu Lys Lys His Lys Val Lys Thr Arg Val Leu Arg Lys Thr Leu Asp 205 210 215 | 798 |
| 10 | CCA GCT TTT GAT GAG ACC TTT ACA TTC TAT GGG ATA CCC TAC ACC CAA Pro Ala Phe Asp Glu Thr Phe Thr Phe Tyr Gly Ile Pro Tyr Thr Gln 220 225 230 | 846 |
| 15 | ATC CAA GAA TTG GCC TTG CAC TTC ACA ATT TTG AGT TTT GAC AGG TTT Ile Gln Glu Leu Ala Leu His Phe Thr Ile Leu Ser Phe Asp Arg Phe 235 240 245 | 894 |
| 20 | TCA AGA GAT GAT ATC ATT GGG GAA GTT CTA ATT CCT CTC TCG GGA ATT Ser Arg Asp Asp Ile Ile Gly Glu Val Leu Ile Pro Leu Ser Gly Ile 250 255 260 | 942 |
| 25 | GAA TTA TCT GAA GGA AAA ATG TTA ATG AAT AGA GAG ATC ATC AAG AGA Glu Leu Ser Glu Gly Lys Met Leu Met Asn Arg Glu Ile Ile Lys Arg 265 270 275 280 | 990 |
| 30 | AAT GTT AGG AAG TCT TCA GGA CGG GGT GAG TTA CTG ATC TCT CTC TGC Asn Val Arg Lys Ser Ser Gly Arg Gly Glu Leu Leu Ile Ser Leu Cys 285 290 295 | 1038 |
| 35 | TAT CAG TCC ACC ACA AAC ACT CTA ACT GTG GTT GTC TTA AAA GCT CGA Tyr Gln Ser Thr Thr Asn Thr Leu Thr Val Val Val Leu Lys Ala Arg 300 305 310 | 1086 |
| 40 | CAT CTG CCT AAA TCT GAT GTG TCC GGA CTT TCA GAT CCC TAT GTC AAA His Leu Pro Lys Ser Asp Val Ser Gly Leu Ser Asp Pro Tyr Val Lys 315 320 325 | 1134 |
| 45 | GTG AAC CTG TAC CAT GCC AAA AAG AGA ATC TCC AAG AAG AAG ACT CAT Val Asn Leu Tyr His Ala Lys Lys Arg Ile Ser Lys Lys Lys Thr His 330 335 340 | 1182 |
| 50 | GTG AAG AAA TGC ACC CCC AAT GCA GTG TTC AAT GAG CTG TTT GTC TTT Val Lys Lys Cys Thr Pro Asn Ala Val Phe Asn Glu Leu Phe Val Phe 345 350 355 360 | 1230 |
| 55 | GAT ATT CCT TGT GAG GGC CTT GAA GAT ATA AGT GTT GAA TTT TTG GTT Asp Ile Pro Cys Glu Gly Leu Glu Asp Ile Ser Val Glu Phe Leu Val 365 370 375 | 1278 |
| 60 | TTG GAT TCT GAA AGG GGG TCC CGA AAT GAG GTA ATC GGG CAG TTA GTC Leu Asp Ser Glu Arg Gly Ser Arg Asn Glu Val Ile Gly Gln Leu Val 380 385 390 | 1326 |
| 65 | TTG GGT GCA GCA GCA GAA GGA ACT GGT GGA GAG CAC TGG AAA GAG ATC Leu Gly Ala Ala Ala Glu Gly Thr Gly Gly Glu His Trp Lys Glu Ile 395 400 405 | 1374 |
| 70 | TGT GAC TAC CCC AGG AGA CAA ATT GCC AAG TGG CAC GTG CTC TGT GAT Cys Asp Tyr Pro Arg Arg Gln Ile Ala Lys Trp His Val Leu Cys Asp 410 415 420 | 1422 |
| 75 | GGT TAGCATCCTA GCCGTGAGTT GGAACTTAAA GGTTTTACT AGGCAAGGAG Gly 425 | 1475 |
| 80 | AAATTTCTT TCTTTCTATA TTGGATTGCA AGCTTGGAA ATCAAGCTAC CTTTTGTTG TTGTTGTTGT TGCTAGAAAT GGATTGAATT AGTAGACCAG AAAGTAACCT CAAATGTGTA | 1535 |
| | | 1595 |

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| | TTATGATAAT TTCCCTATT ATTAGAAGAG TTGGATAAAAT TTTCATAAGA TATTCAATAT | 1655 |
| | CTCCTTCAGA TTACCACTGA TATAACTAGG AATAGTCAGA CATTATGAGA ATACTGTGCC | 1715 |
| 5 | AGAATCCCAA ATTATAAAATG TGACAATCTC ATTGGAACAT GTCACAAAAA GTTAATGTGA | 1775 |
| | TTAAGATTTA AAAACGAAAA GTATGCCCTG CCTTGTGAAA ATTTATCCAT TTATCTTCAG | 1835 |
| 10 | GTTGGGGAA ATCAATTTT CTTAATCCA AAGATACTAA AAAAATGTCC TCCAGTTGT | 1895 |
| | ATTTATTAAT TCTGTATGT GCAAATGGTT GTCCTGCATA TAAAAGTATC TGGTCATTTC | 1955 |
| | AGTTGGTTT GTAATTATTT GATGCAATTT TATCATAAGA GTAACCTCAGA TTCATTCAA | 2015 |
| 15 | AAGGACAGTG AACAAAGCTGA GAAATTATTT TATCAAAGGG CTGAGTTGAG AACACTGTGG | 2075 |
| | CTGAAATATA ATTTTCTCC CCCCTAAGGT TACATGTGAG TCAAAATTT GTAAAATATA | 2135 |
| 20 | ACCTCACATA AGAACCATGG CCTTGGATTAA TTCACTGCCT GTCACAAGCC TCAGTGTGGC | 2195 |
| | CTGAGAAATC CCTATGTACC TTTGTGAAAT TGTTGAATTA GTTAGTGAAT AAAGAAATAA | 2255 |
| | ACTTCAACTA GAAATCCAGT TAGAAGTGCA ATTTCTTAT AGGAAATAGG TATAGTGTGC | 2315 |
| 25 | AAGTGTACTT TTAAGGCCAT CGTTTGTACC CAGAGTCGGC ATGGCCACCT AAGTCTTCAT | 2375 |
| | TTAATTTATT GTCCCCCAGA AAAGATTAAG ATGCTACTTG AAAAGACTGT GAAGATTTT | 2435 |
| 30 | TACATTGCCA GATAAAAAGT GTTACTTAAC CAACAAACAA ATGTAAGACT ACAAAATCGT | 2495 |
| | TCAAGAGCAA TTCTAATATA ATTTACATAT GTTCACGCAA AATATGCTTA GGCTGTCAA | 2555 |
| | TTAGCACAAC AAAGAATGTG TTTCACTATC TTTCTAGGC TAATTGTCT TGAGCTGTTG | 2615 |
| 35 | TCTATAGAGC AGTTTACAGA CTTGTGTCTT GTATCATTTC CCAGTGCCAG GGTTCTGAAA | 2675 |
| | TTCATTCCAGA ACCTGTTAGA TTAAAGCTGC ACCCTGTGAT TATTTGAAAA GAATTAGCTT | 2735 |
| 40 | GAGAGTAATG TCACTATATT TGAGTTCTTA GAGAAGTATG AGTGGAACTT GAGTACAGTT | 2795 |
| | GAATTATTAATATGCAAGT TAGAAATTAA GTCTACTGAA AAATTACAT TTTGAGTCAG | 2855 |
| | TTTTGTGTC AGTACTTTAG CAGTTTTGA GAATGTGTTT GATATCACAG TGTTGTAAA | 2915 |
| 45 | TTCTATGAAA AATGCATTTC CCAAACAAC TATACATGCT TTTTATGACT ATGCCATAATG | 2975 |
| | TAAAGAAAAT GTATTACATT CTGTATGTAC AAAGATTAAG AATCACACCTC TTTTTGTGC | 3035 |
| 50 | TTTAAAATGA CTTTGGGATT AAAAAAGCAT ATTCCCAAT CATTGTCTTC ATTCCACTAC | 3095 |
| | AAAGTCACCT CACAGCATCT TGCTCCACTC GGCATCTCTG TGAAAGCAAC ATGAAATGAA | 3155 |
| | CTGTAGTAGG TGTGTAGTTT GGGGAAGTCA AATGGCCATT TTATGTATGT GCATTTGGTA | 3215 |
| 55 | TCATGGCCG TGGAACAGAA TATATGTTGG ACCTCTGAAA AGTTGTAAGG GGCCAAATCT | 3275 |
| | AAGTATTCTT CACGGCAGCC AGAAGTTAAT GGTGGTAGCA GCTGAGGTAT GGTTGTTGGA | 3335 |
| 60 | CGAGGCCGAT TTTTTTTTT TAACATGGAA CAATGAAACC AACACAAAC ATTTTTAAAA | 3395 |
| | TTAAAATGGA TAATTGTAA ATAGTTTTA GCTTTAAAA TTTAAAGTGT TTTGAGTGT | 3455 |
| | GAAAAGTTGA GTAAAACATAT TTGCAACTGG TTTCAGAAA AGAGAAAAGA AACACAAAG | 3515 |
| 65 | GAATTGAAAC AGGCAGGGAG ATCTTAATAC CTAATTCAT CATTCTGCA AAATGTACTG | 3575 |
| | TTTTAGAATG TATTACAATA TCAATGTGAA TATCTTGAAT CCTGTTACAA ATCCTGCAC | 3635 |

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|------------|------------|-------------|------------|-------------|-------------|------------|------|
| GTATTAAACA | TGTAAATTAA | TTGTTTGTCT | GATTAGCCAA | TCTCACCCACC | CAAATGGGGA | 3695 | |
| GGTATACATG | TTTGAAGAAC | GTGTAACTCG | GTAATTGATT | TGTTCTGATG | TTGTAACCTCA | 3755 | |
| 5 | ATAGAAGTGT | TTTGGAAAGGA | AGCATGGTGT | GTGAGACAGT | GTCTGTTCTT | TTGTGCCAGC | 3815 |
| | TCTGTATGAT | GTTTGTAAAGA | CCATGTTGT | AAGACATGAA | TAAATTGCTG | CTTTTGCCCA | 3875 |
| 10 | AAAAAAAAAA | AAAAAA | | | | | 3891 |

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(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

5 (A) LENGTH: 425 amino acids
 (B) TYPE: amino acid
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

10 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met Ala Pro Ile Thr Thr Ser Arg Glu Glu Phe Asp Glu Ile Pro Thr
 1 5 10 15

15 Val Val Gly Ile Phe Ser Ala Phe Gly Leu Val Phe Thr Val Ser Leu
 20 25 30

Phe Ala Trp Ile Cys Cys Gln Arg Lys Ser Ser Lys Ser Asn Lys Thr
 35 40 45

20 Pro Pro Tyr Lys Phe Val His Val Leu Lys Gly Val Asp Ile Tyr Pro
 50 55 60

25 Glu Asn Leu Asn Ser Lys Lys Lys Phe Gly Ala Asp Asp Lys Asn Glu
 65 70 75 80

Val Lys Asn Lys Pro Ala Val Pro Lys Asn Ser Leu His Leu Asp Leu
 85 90 95

30 Glu Lys Arg Asp Leu Asn Gly Asn Phe Pro Lys Thr Asn Leu Lys Pro
 100 105 110

Gly Ser Pro Ser Asp Leu Glu Asn Ala Thr Pro Lys Leu Phe Leu Glu
 115 120 125

35 Gly Glu Lys Glu Ser Val Ser Pro Glu Ser Leu Lys Ser Ser Thr Ser
 130 135 140

40 Leu Thr Ser Glu Glu Lys Gln Glu Lys Leu Gly Thr Leu Phe Phe Ser
 145 150 155 160

Leu Glu Tyr Asn Phe Glu Arg Lys Ala Phe Val Val Asn Ile Lys Glu
 165 170 175

45 Ala Arg Gly Leu Pro Ala Met Asp Glu Gln Ser Met Thr Ser Asp Pro
 180 185 190

Tyr Ile Lys Met Thr Ile Leu Pro Glu Lys Lys His Lys Val Lys Thr
 195 200 205

50 Arg Val Leu Arg Lys Thr Leu Asp Pro Ala Phe Asp Glu Thr Phe Thr
 210 215 220

55 Phe Tyr Gly Ile Pro Tyr Thr Gln Ile Gln Glu Leu Ala Leu His Phe
 225 230 235 240

Thr Ile Leu Ser Phe Asp Arg Phe Ser Arg Asp Asp Ile Ile Gly Glu
 245 250 255

60 Val Leu Ile Pro Leu Ser Gly Ile Glu Leu Ser Glu Gly Lys Met Leu
 260 265 270

Met Asn Arg Glu Ile Ile Lys Arg Asn Val Arg Lys Ser Ser Gly Arg
 275 280 285

65 Gly Glu Leu Leu Ile Ser Leu Cys Tyr Gln Ser Thr Thr Asn Thr Leu
 290 295 300

Thr Val Val Val Leu Lys Ala Arg His Leu Pro Lys Ser Asp Val Ser
305 310 315 320

5 Gly Leu Ser Asp Pro Tyr Val Lys Val Asn Leu Tyr His Ala Lys Lys
325 330 335

Arg Ile Ser Lys Lys Thr His Val Lys Lys Cys Thr Pro Asn Ala
340 345 350

10 Val Phe Asn Glu Leu Phe Val Phe Asp Ile Pro Cys Glu Gly Leu Glu
355 360 365

Asp Ile Ser Val Glu Phe Leu Val Leu Asp Ser Glu Arg Gly Ser Arg
15 370 375 380

Asn Glu Val Ile Gly Gln Leu Val Leu Gly Ala Ala Ala Glu Gly Thr
385 390 395 400

Gly Gly Glu His Trp Lys Glu Ile Cys Asp Tyr Pro Arg Arg Gln Ile
20 405 410 415

Ala Lys Trp His Val Leu Cys Asp Gly
420 425